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AUTHOR Jackaway, Rita Freedman
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ABSTRACT

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ACHIEVEMENT ATTRIBUTIONS
and the
LOW EXPECTATION CYCLE IN FEMALES

by

RITA FREEDMAN JACKAWAY

STATE UNIVERSITY COLLEGE, NEW PALTZ, N.Y.

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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For a more complete account of this research see "Sex Differences in Achievement Motivation, Behavior, and Attributions about Success and Failure", Dissertation Abstracts International, Vol 35, No. 10, Unpublished Doctoral Dissertation, SUNY at Albany, 1974.

Abstract

Expectancy estimates, performance scores, level of aspiration, and attribution scores were collected from 160 high school seniors. Performance involved a symbol coding test introduced as either a masculine or feminine task. Female expectancy estimates were lower than male on both tasks. Females expected to lose under direct competition, significantly more often than males. A Low Expectation Cycle (LEC) was developed relating low expectations in females with early socialization and with a particular pattern of outcome attributions. Though the magnitude of sex differences in attributions was small, the predicted direction of difference was correct in 7 out of 8 cases. The LEC appears to hold true for masculine but not for feminine tasks.

INTRODUCTION

Sex differences have been reported in a number of aspects of achievement behavior including motivation, arousal, fear of failure, fear of success and expectations for success. These differences in achievement orientation seem to reflect the socialization process through which males and females come to value and to adopt specific sex-typed behavior patterns. High achievement motivation has been related to early training for independence and direct encouragement for achievement. It is generally held that girls receive less and later encouragement for independence, perhaps resulting in a condition of learned helplessness, and in a "fear of success" orientation (Veroff, 1969).

This orientation is characterized by selection of easy tasks, avoidance of previous failures, and general low expectations. The tendency toward low expectations seems characteristic of females from early childhood right through college (Crandall, 1969). In addition there appears to be an achievement drop-off among girls as they reach maturity which has been attributed to an inherent conflict between achievement behavior and the generally accepted female sex-role characteristics (Horner, 1968). The amount of conflict that is experienced will depend in part on the nature of the achievement task. Competitive achievement in an activity generally viewed as feminine will logically arouse less conflict in females than competitive achievement on a more masculine type task (Stein and Bailey, 1972).

Achievement expectations appear to be linked with the perceived causes of events and outcomes (attributions). While a clear relationship between need achievement (nAch) and attributional pattern has been found in males, the results for females remain unconclusive (Weiner et al. 1971). There is also some evidence

that attributional bias (on the part of observors) is based partly on the sex of the performer and partly on the sex appropriateness of the task (Deaux and Emswiller, 1974; Frieze, 1975).

In the present study, an attempt was made to determine whether sex differences in expectations were related to the sex appropriateness of the achievement task. It is here proposed that females are locked in a Low Expectation Cycle (LEC). It appears that girls first develop and express low expectations as a by-product of female sex-role identification. Socialization for modesty, dependent, non-competitive and non-aggressive behavior results in feelings of "learned helplessness" and low self-esteem. All this, plus the perceived conflict between achievement behavior and feminine behavior contribute to initial low achievement expectations.

Low expectations may be self-perpetuating regardless of the actual performance which follows them, because of their relationship to the attributional analysis of the outcome. A predicted outcome has a different meaning from an unpredicted outcome. For example, if a female expresses a low expectation, and then succeeds in performing well, her success has been unpredicted. An unpredicted success is most reasonably attributable to an external and/or unstable factor like luck. Having attributed success in this way, there is little enhancement of self-esteem resulting from the success, hence no carryover to the next achievement situation, where low expectations are likely to recur.

In like manner, a low expectation followed by low performance is a predicted failure, and a predicted failure is most reasonably

attributed to a stable/internal factor such as lack of ability. By attributing failure to lack of ability, self-confidence is further reduced which perpetuates low expectations in the future. Figure I depicts these components of the proposed LEC and Figure II shows a corresponding High Expectation Cycle that seems more prevalent in males. In this study, the proposed LEC was tested against actual sex differences in outcome attributions to determine whether low expectations in females are partly perpetuated by attributions.

Figure I

Low Expectation Cycle in Females

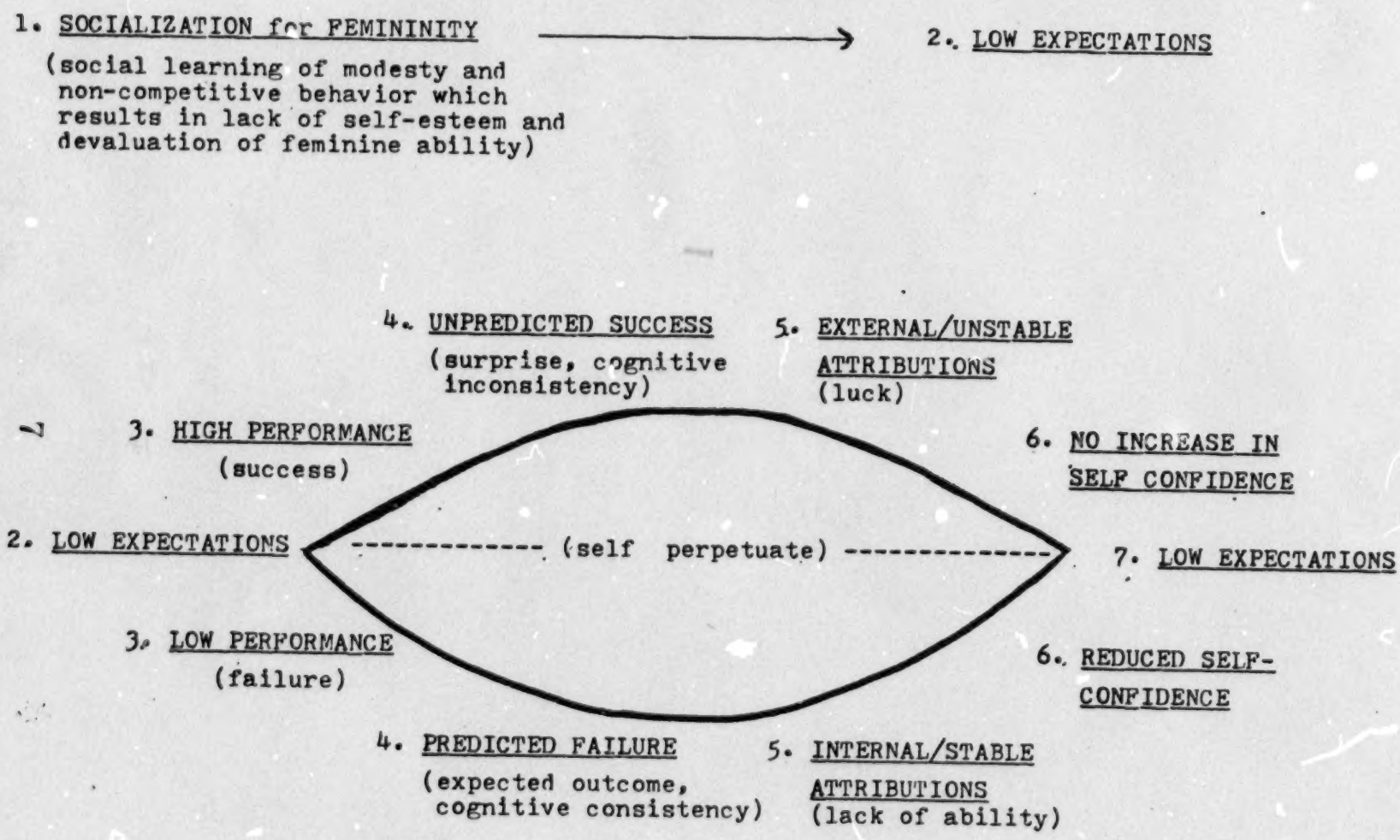
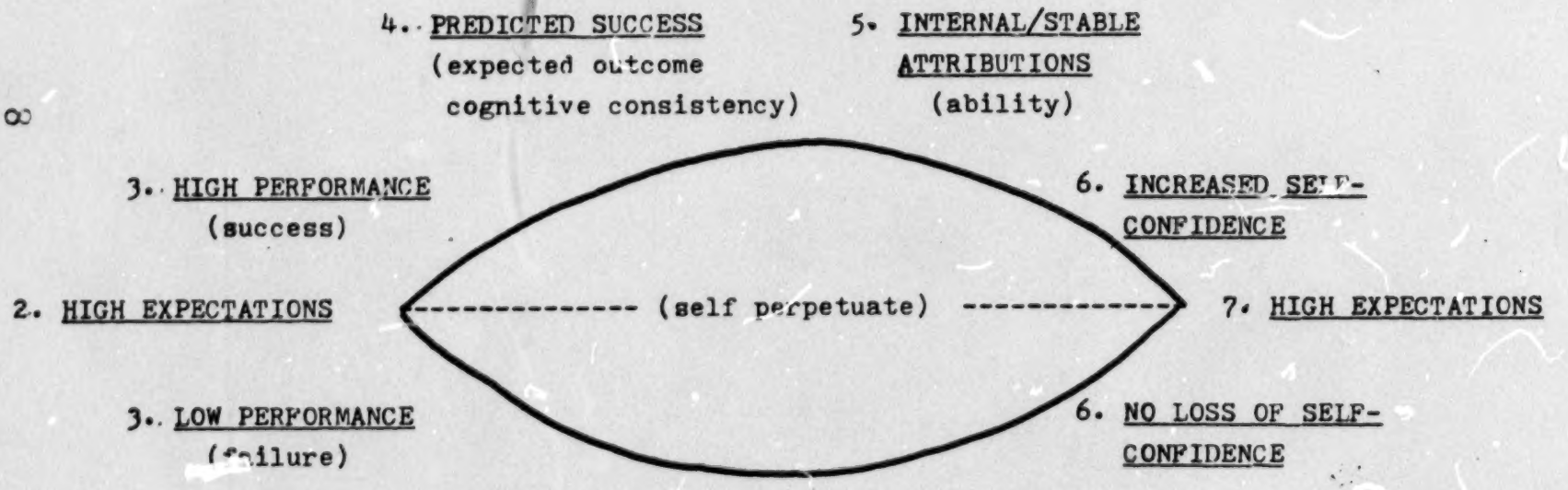


Figure II

High Expectation Cycle in Males

2. SOCIALIZATION for MASCULINITY ⟶ 2. HIGH EXPECTATIONS

(social learning of independent, active, aggressive behavior which results in high self-esteem and high valuation of masculine ability)



SUBJECTS AND PROCEDURE

In this study, 80 male and 80 female senior class high school students attending schools in the Mid-Hudson Valley of N.Y. State were tested in Nov. 1973. Their median age was 17 years, 7 months and they were tested in class groups. Each student received a test booklet which contained a symbol coding test consisting of a pattern of boxes. The achievement task involved placing the correct letter in each box, corresponding with the appropriate symbol. Some classes received a "masculine" variation of the test, (Task M), in which the task was introduced as a nuclear reactor wiring pattern. The instructions indicated that people who do well on this type of task are generally good at various technical skills such as repairing machinery and wiring electric curcuits. Other classes received a feminine variation, (Task F), in which the instructions indicated that people who excell on this test are good at creative sewing such as crocheting and embroidery.

Just before taking the symbol coding test, subjects were asked to estimate their expected score on the test. As had been hypothesized females had a significantly lower expectation score than males. The mean for females was 33.4 while the mean for males was 40.2, ($F = 10.6$, $p < .01$). The difference between each subject's expectation and their actual performance was computed and labeled the expectation discrepancy score (EDS). Of the male subjects, 47% overestimated their performance as compared to 25% of the females, ($x^2 = 12.2$, $p < .01$). The average male EDS was +2.7 (overestimation) while the average female EDS was -6.9 (underestimation).

Success or failure on the test was determined in one of two ways according to the experimental design. Some classes were assigned to a general competitive condition and received false feedback norms. In other classes students competed directly against a specific classmate and success or failure was determined by comparison with the competitors score. In these classes, subjects were asked to estimate an expectation score for their competitor as well as for themselves. While 65% of the males selected a higher self-expectation, (indicating that they thought they would win the competition), only 25% of the females did so ($x^2 = 12.1$, $p < .001$).

Symbol coding tasks have generally been regarded as tests of perceptual speed and females frequently obtain higher scores in this area. The overall performance mean for females in this study was significantly higher than that for males ($F = 6.2$, $p < .02$). There were no task differences in the performance scores of males. Females however performed significantly better on Task F (the embroidery task) than on Task M (the nuclear wiring pattern), ($F = 4.8$, $p < .05$). Thus the sex appropriateness of the task was related to the performance of females, but not of males.

After receiving feedback as to the success or failure of their performance, subjects were asked to estimate the number of boxes they thought they would be able to complete if they were to take the symbol coding test over again. This response represented their Level of Aspiration score (LA). The mean overall LA for males and females did not differ significantly. There was no task effect on the LA scores of males. For females however, the LA on Task F was significantly higher than on Task M, reflecting the fact that females performed better on Task F. ($F = 10.6$, $p < .01$).

The difference between performance and LA was determined for each subject and labeled the Goal Discrepancy Score (GDS). The GDS of males and females did not differ after performance on Task F, but on Task M, the GDS of males was significantly higher than that of females, ($F = 6.5$, $p < .01$). Thus while female initial expectation scores were lower on both tasks, their GDS were lower only on the masculine task.

It was proposed in the introduction of this paper that some females are trapped in a low expectation cycle which may be perpetuated by attributional patterns that minimize the value of success and maximize the negative effects of failure. After receiving performance feedback, subjects were asked to complete an attribution test which consisted of four questions concerning the extent to which they viewed their success or failure as having been due to luck, effort, ability or task difficulty. They responded by circling a number on a 9 point Likert-type scale.

A series of hypotheses were generated from the proposed low expectation cycle and were used to predict sex differences in attributions after success and failure. It was predicted that females would attribute

success to good luck, high effort and an easy task, but not to high ability. In contrast it was thought that females would attribute failureto lack of ability, high effort and an easy task, but not to bad luck. Analysis of attribution responses involving the four factors of luck, effort, ability, and task difficulty according to task and outcome revealed only one significant sex difference. Females rated both tasks as easier than did males. Success on a task that is rated as easy cannot be a very great source of pride, while failure on an easy task implies lack of ability (an ascription which is most damaging to self esteem). By rating the tasks as more difficult, males who succeeded gained an extra measure of confidence while males who failed were partly protected from loss of self esteem.

Comparison of male and female attribution scores according to the predictionsfrom the LEC are shown in Table I and II. The differences shown here represent nonsignificant trends. Boxes which contain a plus indicate that the prediction was confirmed with results in the positive direction while boxes with a minus indicate results in the negative direction.

TABLE I

COMPARISON OF MALE AND FEMALE ATTRIBUTION SCORES ACCORDING TO THE Predicted Responses FOR SUCCESS DERIVED FROM THE L.E.C.

Success will be attributed to:

	Task M	Task F
Easy Task	Females rated the task as easier +	No difference
Good Luck	Females believed they ~~tried harder~~. had better luck +	No difference
High Effort	Females believed they tried harder. +	Males believed they tried harder -

Success will not be attributed to

High Ability	Males felt they had greater ability +	No difference

TABLE II

COMPARISON OF MALE AND FEMALE ATTRIBUTION SCORES ACCORDING TO THE PREDICTED RESPONSES FOR FAILURE DERIVED FROM THE L.E.C.

Failure Will Be Attributed To:	Task M	Task F
High Efforts	Females felt they tried harder. +	Females felt they tried harder. +
Lack of Ability	No difference.	No difference.
Task Difficulty	Females felt the task was easier. +	Females felt the task was easier. +
But Not To:		
Bad Luck	Males felt that luck was a more important factor. +	Females felt that luck was a more important factor. −

As can be seen in Tables I and II, the predicted direction of difference between male and female attributions were correct in seven out of eight cases for Task M. Though the sex differences were small, when viewed as a whole they tend to support the premise that low expectations in females may indeed be perpetuated by a particular pattern of attributions, at least on tasks which are viewed as "masculine". The results did not confirm the LEC for "feminine" tasks, It should be recalled that the Goal Discrepancy Scores also reflected this task difference. Lower expectations continued for females on the masculine task, but not on the feminine task.

CONCLUSIONS

That females approach achievement situations with an apparent lack of self-confidence was highly supported by these results. Their initial expectations were lower than those of males. Females underestimated their actual performance while males overestimated their performance, and in direct competition, only 25% of the females, as compared with 65% of the males, expected to win. Although sex differences in achievement behavior have long been recognized, the one point on which there appears to be a growing body of consistent findings is that of expectancy estimates. Lower expectations in females seems to hold true over a wide variety of tasks, both masculine and feminine, and over a wide age range.

Tentative evidence suggests that these low expectations may be self perpetuating because they lead to attributions which minimize the value of success and which maximize the negative effects of failure. This appears to be true when the achievement task is viewed as masculine, but not when the task is "feminine" in content.

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